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SCHWEGMAN, LUNDBERG & WOESSNER, P.A.
P.O. BOX 2938
MINNEAPOLIS, MN 55402

EXAMINER	
TODD, GREGORY G	

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DEAN CHENG and SNEHAL KARIA

Appeal 2010-011518
Application 09/491,991
Technology Center 2400

Before, ROBERT E. NAPPI, DAVID M. KOHUT, and
JASON V. MORGAN, *Administrative Patent Judges.*

KOHUT, *Administrative Patent Judge.*

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) of the final rejection of claims 1-68. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part the Examiner's rejection of these claims.

INVENTION

The invention is directed to a method, system, apparatus, and computer program product for managing network congestion. *See* Spec. 2. Claim 1 is representative of the invention and is reproduced below:

> 1. A method to manage congestion in a network, the method comprising:
>
> determining a congestion status associated with a node in a single peer group or a hierarchical level in the network, the congestion status being represented by a transit flag accessible to at least one other node in the single peer group or the hierarchical level to determine if a call is routed through the node; and
>
> broadcasting the congestion status from the node to the at least one other node in the single peer group of the hierarchical level.

REFERENCES

Fukuta	US 5,090,011	Feb. 18, 1992
Fedyk	US 6,560,654 B1	May 6, 2003 (filed Oct. 12, 1999)
Proctor	US 6,563,809 B1	May 13, 2003 (filed Apr. 28, 1999)

REJECTIONS AT ISSUE

Claims 52-68 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Ans. 12-17.

Claims 1-7, 10-15, 18-24, 27-32, 35-41, 44-49, 52-58, and 61-66 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fukuta in view of Proctor. Ans. 3-10.

Claims 8-9, 16-17, 25-26, 33-34, 42-43, 50-51, 59-60, and 67-68 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fukuta in view of Proctor and Fedyk. Ans. 11-12.

ISSUES

35 U.S.C. § 112, second paragraph rejections

Appellants argue on pages 4-7 of the Reply Brief that the Examiner's rejection of claims 52-68 is in error. These arguments present the following issues:

a) Did the Examiner err in in concluding claims 52-60 are indefinite within the meaning of 35 U.S.C. § 112, second paragraph?

b) Did the Examiner err in concluding claims 61-68 are indefinite within the meaning of 35 U.S.C. § 112, second paragraph?

35 U.S.C. § 103(a) rejections

Appellants argue on pages 10-13 of the Appeal Brief and pages 7-8 of the Reply Brief that the Examiner's rejection of claims 1-7, 10-15, 18-24, 27-32, 35-41, 44-49, 52-58, and 61-66 is in error. These arguments present the following issues:

Did the Examiner err in finding that Fukuta and Proctor disclose:

a) Broadcasting a congestion status from one node to at least one other node in the single peer group or a hierarchical level, as recited in claims 1, 18, 35, and 52;

b) A congestion status that corresponds to a measured condition, as recited in claims 10, 27, 44, and 61;

c) Measuring the condition at a node, as recited in claims 2, 19, 36, and 53; and

d) Avoiding sending a call through the congested node unless the node is a terminating node, as recited in claims 3, 20, 37, and 54?[1]

Appellants argue on pages 13-15 of the Appeal Brief and page 8 of the Reply Brief that the Examiner's rejection of claims 8-9, 16-17, 25-26, 33-34, 42-43, 50-51, 59-60, and 67-68 is in error. These arguments present the same issues as discussed above with respect to Fukuta and Proctor (App. Br. 14) and the additional issues:

Did the Examiner err in finding that Fukuta, Proctor, and Fedyk disclose:

a) Determining a congestion status associated with a PNNI node, as recited in claims 16, 33, 42, 50, and 67; and

b) Broadcasting the congestion status to at least one other node using a transit flag being one of a PNNI topology parameter, as recited in claims 17, 34, 43, 51, and 68?

Did the Examiner err in combining Fedyk with Fukuta and Proctor?

ANALYSIS

35 U.S.C. § 112, second paragraph rejections

Claims 52-60

Claim 52 recites "means for determining a congestion status associated with a node." Claims 53-60 are dependent upon claim 52. The

[1] We note that Appellants make additional arguments with respect to claims 8, 9, 25, 26, 59, and 60 which are dependent upon claims 3, 20, and 54. We do not reach these additional issues as this issue is dispositive of the case.

Examiner finds that Appellants' Specification does not sufficiently disclose the structure, material, or acts for performing a "means for determining a congestion status." Ans. 13. Appellants disagree. Reply Br. 4. First, Appellants argue that block 410 of Figure 4 identifies structure associated with this limitation. Reply Br. 4. However, Figure 4 is merely a flow chart indicating the process of the claimed invention and does not indicate any structure for performing the process. Second, Appellants argue that the Specification describes that each node contains an ATM switch that is "'capable of measuring its own operational conditions such as traffic flow status, resource availability, maintenance status, etc.'" Reply Br. 4-5 (citing Spec. 5:10-13). Additionally, Appellants argue that ATMs are used for the claimed measurement as specified in the ATM UNI 3.1 and 3.0 specifications. Reply Br. 5. Therefore, Appellants argue that the ATM is not a general purpose computer and Appellants' Specification sufficiently discloses the structure, material, or acts for performing the above-recited limitation. Reply Br. 5. We agree with Appellants and find that one of ordinary skill in the art would use an ATM switch to measure congestion status associated with a node. As such, we reverse the Examiner's rejection of claims 52-60 under 35 U.S.C. § 112, second paragraph.

Claims 61-68

Claim 61 recites "means for receiving a congestion status associated with a node." Claims 62-68 are dependent upon claim 61. The Examiner finds that Appellants' Specification does not sufficiently disclose the structure, material, or acts for performing the "means for receiving a congestion status…, the congestion status corresponding to a measured node condition at the node." Ans. 15. As noted above, Appellants argue that the

Specification and the ATM UNI 3.1 and 3.0 specifications clearly disclose that an ATM switch is known to perform the above-recited limitation. Reply Br. 6-7. Thus, for the same reasons stated above with respect to claims 52-60, we reverse the Examiner's rejection of claims 61-68 under 35 U.S.C. § 112, second paragraph.

35 U.S.C. § 103(a) rejections

Claims 1, 18, 35, and 52

Claim 1 recites "broadcasting the congestion status from the node to the at least one other node in the single peer group or the hierarchical level." Claims 18, 35, and 52 contain similar limitations. Appellants select claims 1, 18, 35, and 52 as representative of the group comprising claims 1 and 4-7, 18 and 21-24, 35 and 38-43, and 52 and 55-58 (respectively) since these claims are dependent upon claims 1, 18, 35, and 52. App. Br. 13. The Examiner finds that Fukuta's switch is equivalent to the first node and the transmission source is equivalent to the at least one other node. Ans. 19. As such, the Examiner finds that when Fukuta's switch becomes congested, the switch sends, i.e., broadcasts, a congestion message to the transmission source, i.e., at least one other node. Ans. 19. Appellants argue that sending a message from a switch to the transmission source is not the same as broadcasting because interpreting broadcasting as a transmission from one node to only one other is overbroad and overreaching. App. Br. 11-12; Reply Br. 7-8. We disagree. Appellants do not provide a specific definition for the term "broadcasting" in the Specification. Additionally, the claim does not preclude "broadcasting" from including sending a message from one node to one another. Instead, the claim states that the "broadcasting" must include the initial node and at least one other node, which would

include only one node. Thus, we find the Examiner's interpretation of the claim to be reasonable and we find that Fukuta discloses broadcasting.

Additionally, Appellants argue that Fukuta does not disclose broadcasting to a node at a level in a hierarchical system. App. Br. 12. First, the Examiner correctly indicates that the claim requires broadcasting to a second node in either the single peer group or hierarchical level, not both. Ans. 18. Thus, in order to satisfy the claim, the Examiner need only show one of those situations. Second, the Examiner uses Proctor to meet this limitation, not Fukuta. As a result, Appellants arguments directed to this portion of the claim and Fukuta are moot. Third, Appellants admit on page 13 of the Appeal Brief that Proctor discloses that the mobile stations communicate with the base station at the same level, i.e., a single peer group. Therefore, even if Appellants do not agree with the Examiner that Proctor discloses broadcasting to at least one other node in the hierarchical level (Ans. 18), Proctor still discloses the claimed limitation.

For the reasons stated *supra*, we sustain the Examiner's rejection of claims 1, 4-7, 18, 21-24, 35, 38-43, 52, 55-58.

Claims 10, 27, 44, and 61

Claim 10 requires measuring the congestion status at the node. Claims 27, 44, and 61 recite similar limitations. Appellants select claims 10, 27, 44, and 61 as representative of the group comprising claims 10-17, 27-34, 44-51, and 61-68 (respectively). Appellants argue that Proctor does not disclose this limitation. App. Br. 13. We initially note that the Examiner uses Fukuta to disclose this limitation, not Proctor. Ans. 7. The Examiner finds that Fukuta, at column 15, lines 13-36, discloses a processor for monitoring congestion. Ans. 7. Appellants' arguments do not address these

specific findings by the Examiner and we agree that in order to monitor congestion, a measurement of congestion is implied. Thus, we sustain the Examiner's rejection of claims 10-17, 27-34, 44-51, and 61-68.

Claims 2, 19, 36, and 53

Claim 2 requires measuring congestion status at a node. Claims 19, 36, and 53 recite similar limitations. Again, we note that the Examiner uses Fukuta to disclose this limitation, not Proctor. Ans. 4. The Examiner finds that Fukuta, at column 12, lines 1-15, discloses measuring congestion at a node when the amount of packets exceeds a threshold value. Ans. 4. Appellants' arguments do not address these specific findings by the Examiner. Thus, we sustain the Examiner's rejection of claims 2, 19, 36, and 53.

Claims 3, 20, 37, and 54

Claim 3 requires avoiding sending a call through a node upon congestion unless it is a terminating node. Claims 20, 37, and 54 contain similar limitations. We select claims 3, 20, 37, and 54 as representative of the group comprising claims (3, 8, 9), (20, 25, 26), (37), and (54, 59, and 60), respectively, since Appellants have not argued any of these claims with particularity. *See* 37 C.F.R. § 41.37 (c)(1)(vii). Appellants argue that neither Fukuta nor Proctor discloses this limitation. App. Br. 13. The Examiner fails to address this argument and we do not find evidence of this limitation in either of the references. As a result, we cannot sustain the Examiner's rejection of claims 3, 8, 9, 20, 25, 26, 37, 54, 59, and 60.

Claims 16, 33, 42, 50, and 67

Claim 16 requires a node to be a private network-to-network interface (PNNI) node. Claims 33, 42, 50, and 67 recite similar limitations.

Appellants argue that since neither Fukuta nor Proctor discloses the limitations found in these claims' independent claims, that a combination with Fedyk is improper. App. Br. 14. As noted above, we agree with the Examiner that Fukuta and Proctor disclose that which is claimed in the independent claims. Additionally, the Examiner finds and Appellants admit (App. Br. 14) that Fedyk's network uses a PNNI interface. Ans. 11. As such, we sustain the Examiner's rejection of claims 16, 33, 42, 50, and 67.

Claims 17, 34, 43, 51, and 68

Claim 17 recites "wherein the transit flag is a PNNI topology state parameter." Claims 34, 43, 51, and 68 recite similar limitations. Again Appellants argue that since neither Fukuta nor Proctor discloses the limitations found in these claims' independent claims that a combination with Fedyk is improper. App. Br. 14. As noted above, we agree with the Examiner that Fukuta and Proctor disclose that which is claimed in the independent claims. Additionally, the Examiner finds that Fedyk discloses using PNNI topology state packets in the network. Ans. 11. Appellants' arguments do not address these specific findings. Thus, we sustain the Examiner's rejection of claims 17, 34, 43, 51, and 68.

Combination of Fedyk with Fukuta and Proctor

Lastly, Appellants argue that there is no reason to combine the teachings of Fedyk with Fukuta and Proctor since the Examiner has failed to establish the three-pronged test as required by the *Graham* factual inquiries because the references are significantly different than the claimed invention and the Examiner has not shown why the elements would be combined in the fashion claimed. App. Br. 15. We disagree.

The Examiner identifies the relevant portions of each of the references relied on throughout the Examiner's Answer. *See* Ans. 11-12. To the extent that the Examiner relies on the knowledge of one of ordinary skill in the art to combine the teachings of the references, this practice is consistent with current case law. For example, in *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007), the Supreme Court explains:

> Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit. See *In re Kahn*, 441 F.3d 977, 988 (C.A.Fed.2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness"). As our precedents make clear, however, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

In this case, the Examiner's conclusions of obviousness are clearly articulated and are based on detailed factual findings that are supported by the references of record. *See* Ans. 11-12.

The Examiner finds that the combination would "enhance the expendability and compatibility…by having the PNNI parameters encapsulated with the packets used on the ATM network." Ans. 12. Appellants do not specifically address the Examiner's finding. Thus, we find the Examiner's motivation to be sufficient.

For the reasons stated *supra*, we sustain the Examiner's rejection of claims 16-17, 33-34, 42-43, 50-51, and 67-68.

CONCLUSION

The Examiner erred in concluding claims 52-68 are indefinite within the meaning of 35 U.S.C. § 112, second paragraph.

The Examiner did not err in finding that Fukuta and Proctor disclose:

a) Broadcasting a congestion status from one node to at least one other node in the single peer group or a hierarchical level, as recited in claims 1, 18, 35, and 52;

b) A congestion status that corresponds to a measured condition, as recited in claims 10, 27, 44, and 61; and

c) Measuring the condition at a node, as recited in claims 2, 19, 36, and 53.

The Examiner erred in finding that Fukuta and Proctor disclose avoiding sending a call through the congested node unless the node is a terminating node, as recited in claims 3, 20, 37, and 54.

The Examiner did not err in finding that Fukuta, Proctor, and Fedyk disclose:

a) Determining a congestion status associated with a PNNI node, as recited in claims 16, 33, 42, 50, and 67; and

b) Broadcasting the congestion status to at least one other node using a transit flag being one of a PNNI topology parameter, as recited in claims 17, 34, 43, 51, and 68.

The Examiner did not err in combining Fedyk with Fukuta and Proctor.

SUMMARY

The Examiner's decision to reject claims 1-2, 4-7, 10-19, 21-24, 27-36, 38-53, 55-58, and 61-68 is affirmed and claims 3, 8, 9, 20, 25, 26, 37, 54, 59, and 60 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136 (a)(1)(iv).

AFFIRMED-IN-PART

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